Amendment to the Claims

1 (Currently Amended). A method for providing network protection at input/output interfaces of a cross-connect switch, comprising:

receiving an inbound working channel and an inbound protection channel at an input interface;

determining a signal quality of the inbound working and protection channels;

selecting one of the inbound working and protection channels in response to the signal quality of the inbound working and protection channels at the input interface;

providing the selected one of the inbound working and protection channels to a switching matrix in the cross connect switch, wherein the switching matrix outputs the selected one of the inbound working and protection channels over a pre-determined matrix connection, the switching matrix maintaining matrix connections regardless of which one of the inbound working and protection channels is selected.

2 (Original).   The method of Claim 1, further comprising:

receiving a plurality of inbound working channels;

providing a protection switch request to an originator of the inbound working channels and inbound protection channel;

selecting two of the plurality of inbound working channels and the inbound protection channel;

providing traffic from the selected two of the plurality of inbound working traffic from the inbound working channels and the protection channel.

3 (Original).   The method of Claim 2, wherein the network protection is a 1:n linear APS protection scheme.

4 (Original).   The method of Claim 1, further comprising:

providing an outbound working channel and an outbound protection channel;

135518
Page 2

switching the inbound working channel to the outbound protection channel;

switching the inbound protection channel to the outbound working channel, switching of the inbound working and protection channels preventing information from being provided to the switching matrix.

5 (Original). The method of Claim 4, wherein the network protection is a bidirectional line switched ring protection scheme implementing a ring switch.

6 (Original). The method of Claim 1, wherein the network protection is a 1+1 linear APS protection scheme.

7 (Original). The method of Claim 1, wherein the network protection is a bidirectional line switched ring protection scheme implementing a span switch.

8 (Original). The method of Claim 1, wherein the network protection is a fast facility protection scheme.

9 (Original). The method of Claim 1, further comprising:

receiving a control signal, the control signal determining the selection of one of the inbound working and protection channels.

10 (Original). The method of Claim 1, further comprising:

maintaining connections in the switching matrix regardless of the selection of one of the inbound working and protection channels.

11 (Original). An apparatus for providing network protection at a cross-connect switch, comprising:

an input interface operable to receive an inbound working channel and an inbound protection channel, the input interface operable to determine a signal quality of each of the inbound working and protection channels, the input interface operable to select one of the inbound working and protection channels according to the determined signal qualities;

135518
Page 3

a switching matrix operable to receive a selected one of the inbound working and protection channels, the switching matrix operable to output the selected one of the inbound working and protection channels over a pre-determined matrix connection, the switching matrix maintaining matrix connections regardless of which one of the inbound working and protection channels is selected.

12 (Original). The apparatus of Claim 11, further comprising:

an output interface operable to receive the selected one of the inbound working and protection channels, the outbound interface operable to broadcast the selected one of the inbound working and protection channels onto an outbound working channel and an outbound protection channel.

13 (Original). The apparatus of Claim 11, wherein the input interface receives a plurality of inbound working channels, the input interface operable to select two of the inbound protection channel and plurality of inbound working channels.

14 (Original). The apparatus of Claim 11, further comprising:

an output interface operable to receive the selected one of the inbound working and protection channels, the outbound interface operable to select one of an outbound working channel and an outbound protection channel over which the selected one of the inbound working and protection channels is to be carried.

15 (Original). The apparatus of Claim 11, wherein the input interface is operable to provide an outbound working channel and an outbound protection channel, the input interface operable to connect the inbound working channel to the outbound protection channel, the input interface operable to connect the inbound protection channel to the outbound working channel, thereby bypassing the switching matrix.